

CLAIMS

What is claimed is:

1. A power supply unit, comprising:

a plurality of power supply circuits having different power conversion efficiency characteristics for converting an input voltage to a predetermined voltage;

an input logic for inputting a control signal for controlling power consumption states; and

a switch for switching to one of said plurality of power supply circuits based on said control signal.

2. The power supply unit according to Claim 1, wherein said switch comprises activation means associated with each of said plurality of power supply circuits and activates the associated power supply circuit based on the state of said control signal.

3. The power supply unit according to Claim 1, wherein:

said plurality of power supply circuits comprises a first power supply circuit for accommodating a lesser electrical load and a second power supply circuit for accommodating a greater electrical load; and

said switch switches to said first power supply circuit in response to assertion of said control signal or said switch switches to said second power supply

9 circuit in response to deassertion of said control
10 signal.

1 4. The power supply unit according to Claim 1, further
2 comprising a holding circuit for holding a power output
3 from one of said plurality of power supply circuits for a
4 predetermined period of time during switching by said
5 switch.

1 5. The power supply unit according to Claim 4, wherein
2 said control signal is delivered through said holding
3 circuit prior to being received by a power supply
4 circuit.

1 6. A power supply unit, comprising:

2 a plurality of power supply circuits having
3 different power conversion efficiency characteristics for
4 converting an input voltage to a predetermined voltage;

5 a detector for sensing the amount of power
6 consumption; and

7 a switch for causing switching to one of said
8 plurality of power supply circuits based on said amount
9 of power consumption.

10 7. The power supply unit according to Claim 6, wherein
11 said detector senses said amount of power consumption
12 based on the amount of electric power input to said
13 plurality of power supply circuits.

14 8. The power supply unit according to Claim 6, wherein
15 said switch comprises activation means which is
16 associated with each of said plurality of power supply
17 circuits and activates the associated power supply
18 circuit based on said amount of power consumption.

19 9. The power supply unit according to Claim 6, wherein:

20 said plurality of power supply circuits comprises a
21 power supply circuit for light load; and

22 a power supply circuit for heavy load and said
23 switch causes switching to said power supply circuit for
24 light load if said amount of power consumption is smaller

7 than a predetermined value or causes switching to said
8 power supply circuit for heavy load if said amount of
9 power consumption is greater than said predetermined
10 value.

1 10. The power supply unit according to Claim 6, further
2 comprising holding means for holding a power output for a
3 predetermined period of time during switching by said
4 switch.